Desai, A.
10/019743

FILE 'REGISTRY' ENTERED AT 15:22:41 ON 01 FEB 2005
L4 14 S PHWSY.LRP/SQSP Peptide

FILE 'CAPLUS' ENTERED AT 15:23:01 ON 01 FEB 2005
L5 17 S L4

L5 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 21 May 2004
ACCESSION NUMBER: 2004:412742 CAPLUS
DOCUMENT NUMBER: 140:423952
TITLE: Preparation of neuroprotective iron chelators and pharmaceutical compositions comprising them
INVENTOR(S): Warshawsky, Abraham; Youdim, Moussa B. H.; Fridkin, Matitiyahu; Zheng, Hailin; Warshawsky, Rivka
PATENT ASSIGNEE(S): Technion Research and Development Foundation Ltd., Israel; Yeda Research and Development Co. Ltd.
SOURCE: PCT Int. Appl., 147 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041151	A2	20040521	WO 2003-IL932	20031107
WO 2004041151	A3	20041028		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-424313P P 20021107
US 2003-504126P P 20030922

OTHER SOURCE(S): MARPAT 140:423952

AB Novel iron chelators exhibiting neuroprotective and good transport properties are useful in iron chelation therapy for treatment of a disease, disorder or condition associated with iron overload and oxidative stress (e.g., a neurodegenerative or cerebrovascular disease or disorder, a neoplastic disease, hemochromatosis, thalassemia, a cardiovascular disease, diabetes, an inflammatory disorder, anthracycline cardiotoxicity, a viral infection, a protozoal infection, a yeast infection, retarding aging, and prevention and/or treatment of skin aging and skin protection against sunlight and/or UV light). The iron chelator function is provided by a 8-hydroxyquinoline, hydroxypyridinone or hydroxamate moiety, the neuroprotective function is imparted to the compound by a neuroprotective peptide, and a combined antiapoptotic and neuroprotective function by a propargyl group. The examples illustrate syntheses of compds. of the invention, e.g., Fmoc-KKC(HQ)L-NH2 (HQ is 8-hydroxyquinoline, Fmoc is fluorenylmethoxycarbonyl), for which iron-scavenging properties were assessed in human erythroleukemia K562 cells (shown graphically).

IT **691364-89-3 691364-91-7**
RL: PRP (Properties)
(unclaimed sequence; preparation of neuroprotective iron chelators and pharmaceutical compns. comprising them)

L5 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 08 Feb 2004
ACCESSION NUMBER: 2004:100789 CAPLUS
DOCUMENT NUMBER: 140:157932
TITLE: Methods and compositions for treating benign gynecological disorders with gonadotropin releasing hormone (GnRH) analogs and steroid hormones
INVENTOR(S): Daniels, Anna-Marie; Daniels, John R.; Pike, Malcolm C.; Spicer, Darcy V.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004023867	A1	20040205	US 2002-298851	20021115
WO 2004012712	A1	20040212	WO 2003-US24337	20030801

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2002-400626P	P	20020802
US 2002-400575P	P	20020802
US 2002-400576P	P	20020802
US 2002-295337	A2	20021115
US 2002-298378	A2	20021115
US 2002-298851	A2	20021115

AB An improvement in a method of treating benign gynecol. disorders is described. In the method, treatment of a benign gynecol. disorder with a composition comprised of a gonadotropin releasing hormone (GnRH) compound and an estrogenic compound, and optionally, an androgenic compound, is extended to premenopausal women who are not receiving an exogenously supplied progestin on a regular or periodic basis. Treatment in accord with the invention does not increase significantly the risk of endometrial hyperplasia. The method is also suitable for contraception.

IT **654640-87-6**
RL: PRP (Properties)
(unclaimed sequence; methods and compns. for treating benign gynecol. disorders with gonadotropin releasing hormone (GnRH) analogs and steroid hormones)

L5 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 08 Feb 2004
ACCESSION NUMBER: 2004:100493 CAPLUS
DOCUMENT NUMBER: 140:169637
TITLE: Nasal spray formulation
INVENTOR(S): Daniels, John R.; Pike, Malcolm C.; Spicer, Darcy V.; Daniels, Annamarie
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 21 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004022739	A1	20040205	US 2002-298378	20021115
WO 2004012712	A1	20040212	WO 2003-US24337	20030801

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2002-400575P	P	20020802
US 2002-400576P	P	20020802
US 2002-400626P	P	20020802
US 2002-295337	A2	20021115
US 2002-298378	A2	20021115
US 2002-298851	A2	20021115

AB A nasal spray formulation for use in female contraception or in the treatment of benign gynecol. disorders is described. The nasal preparation is comprised of a GnRH compound and an estrogenic compound in the form of a water-soluble complex with a water-soluble cyclodextrin. The preparation effectively suppresses ovarian estrogen and progesterone production, and prevents signs and symptoms of estrogen deficiency, without a significant increase in the risk of endometrial hyperplasia.

IT **654640-87-6**
RL: PRP (Properties)
(unclaimed sequence; nasal spray formulation)

L5 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 08 Nov 2002
ACCESSION NUMBER: 2002:849464 CAPLUS
DOCUMENT NUMBER: 137:358129
TITLE: Preventives for postoperative recurrence of premenopausal breast cancer
INVENTOR(S): Igari, Yasutaka; Kusaka, Masami

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002087616	A1	20021107	WO 2002-JP4071		20020424
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CA 2444727	AA	20021107	CA 2002-2444727		20020424
JP 2003012552	A2	20030115	JP 2002-122734		20020424
EP 1382350	A1	20040121	EP 2002-722741		20020424
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
US 2004235748	A1	20041125	US 2004-475782		20040607
PRIORITY APPLN. INFO.:			JP 2001-128032	A	20010425
			WO 2002-JP4071	W	20020424

OTHER SOURCE(S): MARPAT 137:358129

AB Disclosed are remedies for postoperative recurrence of premenopausal breast cancer containing a GnRH agonist or antagonist which makes it possible to prevent the postoperative recurrence of premenopausal breast cancer without showing any serious side effects. By using sustained-release microcapsules, the drug effect can be sustained over a long time without frequently administering the drug. Thus, the postoperative recurrence of premenopausal breast cancer can be conveniently prevented over a prolonged period of time. Clin. studies showed that s.c. administration of Lupron Depot was effective to prevent recurrence of the breast cancer.

IT **474781-67-4**
RL: PRP (Properties)
(unclaimed sequence; preventives for postoperative recurrence of premenopausal breast cancer)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 17 Feb 1997
ACCESSION NUMBER: 1997:111231 CAPLUS
DOCUMENT NUMBER: 126:113155
TITLE: Functional bioassay for G-protein coupled receptor agonists and antagonists
INVENTOR(S): Israel, David I.; Molineaux, Christopher J.
PATENT ASSIGNEE(S): Pharmaceutical Peptides Incorporated, USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9641169	A1	19961219	WO 1996-US8895	19960605
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2220715	AA	19961219	CA 1996-2220715	19960605
CA 2220715	C	20041102		
AU 9660437	A1	19961230	AU 1996-60437	19960605
AU 730875	B2	20010315		
EP 830600	A1	19980325	EP 1996-918089	19960605
EP 830600	B1	20030827		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11507518	T2	19990706	JP 1996-501357	19960605
AT 248373	E	20030915	AT 1996-918089	19960605
PRIORITY APPLN. INFO.:			US 1995-479803 A	19950607
			WO 1996-US8895 W	19960605

AB Simple, rapid, high-throughout functional bioassays for identifying agents that act as either agonists or antagonists of G-protein coupled receptors (GPCRs), e.g., LH-RH receptor, M1 muscarinic receptor, and β2-adrenergic receptor, are disclosed. In the methods of the invention, a test composition is contacted with an indicator cell expressing a GPCR and at least one parameter of cellular metabolism of the indicator cells is measured to identify a test compound(s) in the test composition as a receptor agonist or antagonist. The assays can be used to screen libraries of test compds. to identify therapeutically useful agonists or antagonists of GPCRs involved in disease conditions. The assays can also be used to identify ligands of "orphan" GPCRs whose natural ligands are unknown. Methods of generating indicator cells expressing GPCRs, and isolated populations of such indicator cells, are also disclosed.

IT **186183-14-2**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(bioassay for G-protein coupled receptor agonists and antagonists)

L5 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 05 Feb 1994
ACCESSION NUMBER: 1994:46108 CAPLUS
DOCUMENT NUMBER: 120:46108
TITLE: A novel computer modeling approach to the structures of small bioactive peptides: The structure of gonadotropin releasing hormone
AUTHOR(S): Gupta, Hema M.; Talwar, Gursaran P.; Salunke, Dinakar M.
CORPORATE SOURCE: Natl. Inst. Immunol., New Delhi, 110 067, India
SOURCE: Proteins: Structure, Function, and Genetics (1993), 16(1), 48-56
CODEN: PSFGEY; ISSN: 0887-3585

DOCUMENT TYPE: Journal
LANGUAGE: English
AB A novel computer modeling approach suitable for the structure anal. of small bioactive peptides has been developed. This approach involves identification of conformational patterns in protein structure data bank based on the sequence homol. with the bioactive peptide. The models built on the basis of this homol. and having common conformational patterns are analyzed under the structural constraints derived from the activity data of various synthetic analogs of the peptide. Application of this procedure to the gonadotropin-releasing hormone (GnRH) resulted in a library of possible structures for GnRH, 9 among which shared a common β-turn. Further anal. of the structures containing the β-turn motif, in the context of the structure-activity data, led to a model for the active conformation of GnRH. The topol. of the putative receptor binding site of the hormone is defined by a contiguous surface formed through an appropriate juxtaposition of the N-terminal pGlu1, the guanidyl group of Arg8, aromatic side chain of Trp3, and the Gly10-NH2 at the C-terminal end.
IT **39064-62-5**
RL: PRP (Properties)
(conformation of, receptor-binding site in relation to)

L5 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 26 Jun 1993
ACCESSION NUMBER: 1993:247987 CAPLUS
DOCUMENT NUMBER: 118:247987
TITLE: The action of LH-releasing hormone and five analogs on estradiol, oxytocin and vasopressin secretion by bovine granulosa cells in culture
AUTHOR(S): Sirotkin, A. V.; Nitray, J.; Nikolajev, S. V.; Burov, S. V.
CORPORATE SOURCE: Dep. Exp. Endocrinol., Res. Inst. Anim. Prod., Nitra, 949 92, Czech.
SOURCE: Journal of Endocrinology (1993), 136(3), 491-6
CODEN: JOENAK; ISSN: 0022-0795
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The release of oxytocin, AVP, and estradiol by bovine granulosa cells in culture was analyzed either with or without LH-RH, its agonists (cyclo[Pro1,D-Phe6]LH-RH and de-(1-3,10)-[D-Ala6]LH-RH) or antagonists ([D-Phe2,D-Phe6]LH-RH, [D-Phe2,D-Phe(NH2)6]LH-RH, or cyclo[Pro1,D-Phe2,D-Phe6]LH-RH). All prepns. used stimulated granulosa oxytocin and estradiol secretion. Vasopressin release was increased after all treatments with LH-RH antagonists, but not after LH-RH or its agonists. The data demonstrate a direct influence of LH-RH and its analogs on the secretion of estrogen and nonapeptide hormones by bovine granulosa cells. A comparison of the effects of LH-RH and its agonists and antagonists suggests that the action of these peptides at the hypophysial and ovarian level is relatively independent.
IT **147930-80-1**
RL: BIOL (Biological study)
(estradiol and oxytocin and vasopressin secretion response to, in ovary granulosa cell)

L5 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 Jul 1991

ACCESSION NUMBER: 1991:401227 CAPLUS
DOCUMENT NUMBER: 115:1227
TITLE: Synthesis of a new cyclic analog of luliberin
AUTHOR(S): Nikolaev, S. V.; Burov, S. V.; Bakharev, V. D.; Makusheva, V. P.; Korkhov, V. V.
CORPORATE SOURCE: Leningr. Gos. Univ., Leningrad, USSR
SOURCE: Khimiya Prirodnykh Soedinenii (1990), (6), 805-10
CODEN: KPSUAR; ISSN: 0023-1150
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 115:1227

AB A new analog of luliberin, cyclo(Pro-Gly-Pro-His-Trp-Ser-Tyr-Gly-Leu-Arg), was synthesized and was found to stimulate ovulation in mature and infantile rats and to improve learning and memory, to increase the pain threshold, to attenuate emotional-affective behavior, to increase aggressiveness, and to impair appetite, and to inhibit development of alcoholism in rats.

IT **134346-41-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and behavioral and ovulatory effects of)

L5 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 01 May 1987
ACCESSION NUMBER: 1987:131912 CAPLUS
DOCUMENT NUMBER: 106:131912
TITLE: Dynamics of LHRH binding to human term placental cells from normal and anencephalic gestations
AUTHOR(S): Belisle, Serge; Lehoux, Jean Guy; Bellabarba, Diego; Gallo-Payet, Nicole; Guevin, Jean Francois
CORPORATE SOURCE: Fac. Med., Univ. Sherbrooke, Sherbrooke, QC, J1H 5N4, Can.
SOURCE: Molecular and Cellular Endocrinology (1987), 49(2-3), 195-202
CODEN: MCEND6; ISSN: 0303-7207
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In order to examine human placental chorionic gonadotropin [9002-61-3] (hCG) production, the binding of an LH-RH agonist (N-Ac-Pro1,D-Leu6)-LH-RH [**107265-30-5**] to 3rd trimester intact placental cells from normal and anencephalic fetuses was examined In normal pregnancies, specific and saturable binding was found for both LH-RH and its analogs with 2 classes of binding sites. Association consts. were 4.7 + 105 M-1 for the low-affinity sites and 1.7 + 108 M-1 for the higher-affinity sites, and the estimated number of sites was 1.71 nmol/mg of cell protein and 2.79 pmol/mg of cell protein, resp. Preincubation with increasing concns. of LH-RH agonist induced a progressive decrease in specific binding sites, and this was manifested by a reduction in hCG production which paralleled the concentration of the agonist in preincubation buffer. Studies with placental cells from 3 anencephalic fetuses showed a decreased binding capacity for LH-RH and its agonist, when compared to normal trophoblastic cells, as well as a reduced capacity to produce hCG. Apparently, mechanisms dependent upon LH-RH binding to its receptor are required for placental hCG production in normal pregnancies. Furthermore, this investigation

suggests a role for the endocrine feto-placental milieu in the manifestation of these placental LH-RH binding sites.

IT **107265-30-5**
RL: BIOL (Biological study)
(placenta binding of, human chorionic gonadotropin production in relation to)

L5 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1976:159896 CAPLUS
DOCUMENT NUMBER: 84:159896
TITLE: Inhibition of luteinizing hormone release by analogs of luteinizing hormone-releasing hormone (LHRH) in vitro
AUTHOR(S): Labrie, F.; Savary, M.; Coy, D. H.; Coy, E. J.; Schally, A. V.
CORPORATE SOURCE: Cent. Hosp., Univ. Laval, Quebec, QC, Can.
SOURCE: Endocrinology (1976), 98(2), 289-94
CODEN: ENDOAO; ISSN: 0013-7227
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Sixteen synthetic analogs of LH-releasing hormone (LHRH) [33515-09-2] were tested for their ability to inhibit the stimulaton of LH [9002-67-9] release induced by 3 + 10-9M LHRH in anterior pituitary cells in monolayer culture. Half-maximum inhibition of LHRH-induced LH release was obtained with 7 analogs at concns. which ranged from 3 + 10-6M to 3 + 10-5M. None of these 7 analogs had significant LH-releasing activity at concns. up to 10-5M. Nine analogs had no detectable antagonistic activity when tested in up to a 3000-fold molar ratio of analog to LHRH.
IT **52162-73-9**
RL: BIOL (Biological study)
(LH release induction by LH-releasing hormones antagonism by)

L5 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1975:531923 CAPLUS
DOCUMENT NUMBER: 83:131923
TITLE: Peptides. LI. Application of the solid phase synthesis for the preparation of proline analogs of LH and FSH releasing hormone
AUTHOR(S): Yajima, Haruaki; Kurobe, Masayuki; Yo, Ikuko; Fujii, Nobutaka; Baba, Yoshihiko
CORPORATE SOURCE: Fac. Pharm. Sci., Kyoto Univ., Kyoto, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1975), 23(7), 1622-4
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Solid phase synthesis was used to prepare LH-FSH-RH analogs in which each constituent amino acid residue was systematically replaced by proline. The samples thus prepared after partial purification, were submitted to biol.
assay. However, none of the inactive peptide, hopefully an inhibitor, was found in these analogs.
IT **39064-62-5P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and biological activity of)

L5 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1975:133216 CAPLUS
DOCUMENT NUMBER: 82:133216
TITLE: Enzymic mechanisms for the inactivation of luteinizing hormone-releasing hormone (LH-RH)
AUTHOR(S): Marks, Neville; Stern, Frederic
CORPORATE SOURCE: New York State Res. Inst. Neurochem. Drug Addict., Ward's Island, NY, USA
SOURCE: Biochemical and Biophysical Research Communications (1974), 61(4), 1458-63
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Study of the breakdown of LH-RH (pyro Glu-His-Trp-Ser-Tyr-Gly-Leu-Arg-Pro-Gly NH2) [33515-09-2] and its analogs provided a basis for predicting biol. activity. The preferential release of internal amino acids (Ser, Tyr, Gly, Leu) by an endopeptidase present in rat brain was blocked by substitution of glycine at position 6 with D-Ala and sarcosine. C-terminal inactivation by a second slower enzyme was blocked by replacement of Gly on position 10 by ethylamide. The analog (D-Ala6, ethylamide10)-LHRH [54797-49-8] is thus the most stable in brain exts. and has one of the highest biol. activities in vivo, compared to LH-RH. The analog cleaved the most rapidly, (Gly.OH10)-LH-RH [35263-73-1], has no biol. activity.
IT **39064-62-5**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(metabolism of, by brain)

L5 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1974:433629 CAPLUS
DOCUMENT NUMBER: 81:33629
TITLE: Synthesis and biological activity of some analogs of the gonadotropin releasing hormone
AUTHOR(S): Arnold, W.; Flouret, G.; Morgan, R.; Rippel, R.; White, W.
CORPORATE SOURCE: Div. Antibiot. Nat. Prod., North Chicago, IL, USA
SOURCE: Journal of Medicinal Chemistry (1974), 17(3), 314-19
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A series of 21 analogs of synthetic gonadotropin releasing hormone (pyroGlu-His-Trp-Ser-Tyr-Gly-Leu-Arg-Pro-Gly-NH2)(I) [33515-09-2] was prepared by the solid-phase method, characterized by chemical and phys. methods,and assayed in vitro for release of LH [9002-67-9] and FSH [9002-68-0] using rat pituitaries. The N-terminal pyroglutamic acid residue is important to bioactivity due to specific spatial structure. Substitution for the histidine in position 2 or the tyrosine in position 5 resulted in marked loss in activity. Activity in relation to peptide chain shortening or substitution is discussed.
IT **39064-62-5P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and FSH and LH releasing activity of)
IT **51988-49-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L5 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1974:146518 CAPLUS
DOCUMENT NUMBER: 80:146518
TITLE: Synthesis and biological properties of [D-Ala6, des-Gly-NH26]-LH-RH ethylamide, a peptide with greatly enhanced LH- and FSH-releasing activity
AUTHOR(S): Coy, David H.; Coy, Esther J.; Schally, Andrew V.; Vilchez-Martinez, Jesus; Hirotsu, Yoshihiro; Arimura, Akira
CORPORATE SOURCE: Veterans Adm. Hosp., New Orleans, LA, USA
SOURCE: Biochemical and Biophysical Research Communications (1974), 57(2), 335-40
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A nonapeptide analog of luteinizing hormone-releasing hormone (LH-RH),[D-Ala6, des-Gly-NH210]-LH-RH ethylamide, was prepared by solid-phase methodology. The peptide was assayed against LH-RH in two in vivo systems and was many times more potent than the naturally occurring hormone. In one of the tests, based on elevation of LH and FSH levels after infusion into immature male rats, the analog showed LH-releasing activity of 1600% and FSH-releasing activity of 1200% compared to LH-RH.
IT **52162-73-9P**
RL: PREP (Preparation)
(synthesis and biol. properties of)

L5 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1974:91413 CAPLUS
DOCUMENT NUMBER: 80:91413
TITLE: Neuroendocrine relations in farm animals. Review
AUTHOR(S): Convey, E. M.
CORPORATE SOURCE: Anim. Reprod. Lab., Michigan State Univ., East Lansing, MI, USA
SOURCE: Journal of Animal Science (Savoy, IL, United States) (1973), 37(3), 745-57
CODEN: JANSAG; ISSN: 0021-8812
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review, with 106 refs., of effects of synthetic gonadotropin-releasing hormone [**39064-62-5**] and synthetic thyrotropin-releasing hormone [24305-27-9] in farm animals and their potential application to problems of animal agriculture.

L5 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1973:124875 CAPLUS
DOCUMENT NUMBER: 78:124875
TITLE: Syntheses and biological activities of analogs of

luteinizing hormone-releasing hormone (LH-RH) substituted in position 1 or 2
AUTHOR(S): Yanaihara, N.; Tsuji, K.; Yanaihara, C.; Hashimoto, T.; Kaneko, T.; Oka, H.; Arimura, A.; Schally, A. V.
CORPORATE SOURCE: Shizuoka Coll. Pharm., Sizuoka, Japan
SOURCE: Biochemical and Biophysical Research Communications (1973), 51(1), 165-73
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Syntheses are described of [Pro1]-LH-RH, [Orotic acid1]-LH-RH, [Glu1]-LH-RH (I), [Ser2]-LH-RH, [Leu2]-LH-RH, [Gln2] LH-RH and [Phe2]-LH-RH, (II). The LH-RH activity of each of these peptides was compared with that of natural LH-RH in vivo. I and II had significant LH-RH activity, while all the other analog possessed extremely low activities. These findings are briefly discussed in the of the structure-activity relationship for LH-Rh.
IT **40291-19-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L5 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1973:16464 CAPLUS
DOCUMENT NUMBER: 78:16464
TITLE: Syntheses and biological activities of analogs of luteinizing hormone releasing hormone (LH-RH)
AUTHOR(S): Fujino, M.; Kobayashi, S.; Obayashi, M.; Fukuda, T.; Shinagawa, S.; Yamazaki, I.; Nakayama, R.; White, W. F.; Rippel, R. H.
CORPORATE SOURCE: Cent. Res. Div., Takeda Chem. Ind., Ltd., Osaka, Japan
SOURCE: Biochemical and Biophysical Research Communications (1972), 49(3), 698-705
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Twenty analogs of luteinizing hormone releasing hormone (LHRH or pGlu-His-Trp-Ser-Tyr-Gly-Leu-Arg-Pro-Gly-NH2), i.e., (2-oxo-4-oxazolidinecarboxylic acid)1, (2-oxo-5-methyl-4-oxazolidinecarboxylic acid)1, Pro1, Phe2, (3-Me-His)2, Lys2, Arg2, Ala4, Thr4, Gln4, (2-Cl-Tyr)5, (2,6-di-Cl-Tyr)5, Gly7, Ala7, Val7, Ile7, Nle7, Lys8, Orn8, and Ala10, were synthesized by the fragment condensation method. Biol. properties of these decapeptide amides were studied and structure-activity relations were discussed.
IT **39064-62-5P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and biol. activity of)

E1 THROUGH E12 ASSIGNED

FILE 'REGISTRY' ENTERED AT 15:25:34 ON 01 FEB 2005
L6 12 SEA FILE=REGISTRY ABB=ON PLU=ON (39064-62-5/BI OR 52162-73-9/BI OR 654640-87-6/BI OR 107265-30-5/BI OR 134346-41-1/BI OR 147930-80-1/BI OR 186183-14-2/BI OR 40291-19-8/BI OR 474781-67-

4/BI OR 51988-49-9/BI OR 691364-89-3/BI OR 691364-91-7/BI)

L7 12 L4 AND L6

L7 ANSWER 1 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **691364-91-7** REGISTRY
CN Glycine, L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosyl-L-cysteinyl-L-leucyl-L-arginyl-L-prolyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 5: PN: WO2004041151 SEQID: 5 unclaimed sequence
SQL 10

SEQ 1 PHWSYCLRPG
=========
HITS AT: 1-9

REFERENCE 1: 140:423952

L7 ANSWER 2 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **691364-89-3** REGISTRY
CN Glycine, L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosylglycyl-L-leucyl-L-arginyl-L-prolyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 3: PN: WO2004041151 SEQID: 3 unclaimed sequence
SQL 10

SEQ 1 PHWSYGLRPG
=========
HITS AT: 1-9

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 140:423952

L7 ANSWER 3 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **654640-87-6** REGISTRY
CN L-Proline, L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosyl-L-tryptophyl-L-leucyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 3: PN: US20040022739 SEQID: 3 unclaimed sequence
CN 3: PN: US20040023867 SEQID: 3 unclaimed sequence
SQL 9

SEQ 1 PHWSYWLRP
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HITS AT: 1-9

REFERENCE 1: 140:169637

REFERENCE 2: 140:157932

L7 ANSWER 4 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **474781-67-4** REGISTRY
CN L-Proline, L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosyl-L-tyrosyl-L-leucyl-L-arginyl- (9CI) (CA INDEX NAME)
OTHER NAMES:

CN 3: PN: WO02087616 PAGE: 31 unclaimed sequence
SQL 9

SEQ 1 PHWSYYLRP
==========
HITS AT: 1-9

REFERENCE 1: 137:358129

L7 ANSWER 5 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **186183-14-2** REGISTRY
CN Glycine, 3-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosyl-D-histidyl-L-leucyl-L-arginyl-L-prolyl- (9CI) (CA INDEX NAME)
SQL 10

SEQ 1 PHWSYHLRPG
==========
HITS AT: 1-9

REFERENCE 1: 126:113155

L7 ANSWER 6 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **147930-80-1** REGISTRY
CN Luteinizing hormone-releasing factor (swine), 1-L-proline-6-D-phenylalanine-10-glycine-, cyclic (10→1)-peptide (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Dipyrrolo[1,2-a:1',2'-g][1,4,7,10,13,16,19,22,25,28]decaazacyclotriacontine, cyclic peptide deriv.
CN Luteinizing hormone-releasing factor (pig), 1-L-proline-6-D-phenylalanine-10-glycine-, cyclic (10→1)-peptide
SQL 10

SEQ 1 RPGPHWSYFL
== =======
HITS AT: 1-2, 4-10

REFERENCE 1: 118:247987

L7 ANSWER 7 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **134346-41-1** REGISTRY
CN Luteinizing hormone-releasing factor (swine), 1-L-proline-10-glycine-, cyclic (10→1)-peptide (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Dipyrrolo[1,2-a:1',2'-g][1,4,7,10,13,16,19,22,25,28]decaazacyclotriacontine, cyclic peptide deriv.
CN Luteinizing hormone-releasing factor (pig), 1-L-proline-10-glycine-, cyclic (10→1)-peptide
SQL 10

SEQ 1 RPGPHWSYGL
== =======
HITS AT: 1-2, 4-10

REFERENCE 1: 115:1227

L7 ANSWER 8 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **107265-30-5** REGISTRY
CN Luteinizing hormone-releasing factor (swine), 1-(1-acetyl-L-proline)-6-D-leucine- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Luteinizing hormone-releasing factor (pig), 1-(1-acetyl-L-proline)-6-D-leucine-
SQL 10

SEQ 1 PHWSYLLRPG
=========
HITS AT: 1-9

REFERENCE 1: 106:131912

L7 ANSWER 9 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **52162-73-9** REGISTRY
CN Luteinizing hormone-releasing factor (swine), 1-L-proline-6-D-alanine-9-(N-ethyl-L-prolinamide)-10-deglycinamide- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Luteinizing hormone-releasing factor (pig), 1-L-proline-6-D-alanine-9-(N-ethyl-L-prolinamide)-10-deglycinamide-
OTHER NAMES:
CN [Pro1,D-Ala6,des-Gly-NH210] LHRH ethylamide
SQL 9

SEQ 1 PHWSYALRP
=========
HITS AT: 1-9

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 84:159896

REFERENCE 2: 80:146518

L7 ANSWER 10 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **51988-49-9** REGISTRY
CN Luteinizing hormone-releasing factor (swine), 1-[1-[(1,1-dimethylethoxy)carbonyl]-L-proline]-4-[O-(phenylmethyl)-L-serine]-5-[O-(phenylmethyl)-L-tyrosine]-8-[N5-[imino[[(4-methylphenyl)sulfonyl)amino]methyl]-L-ornithine]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Luteinizing hormone-releasing factor (pig), 1-[1-[(1,1-dimethylethoxy)carbonyl]-L-proline]-4-[O-(phenylmethyl)-L-serine]-5-[O-(phenylmethyl)-L-tyrosine]-8-[N5-[imino[[(4-methylphenyl)sulfonyl)amino]methyl]-L-ornithine]-
SQL 10

SEQ 1 PHWSYGLRPG
=========
HITS AT: 1-9

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 81:33629

L7 ANSWER 11 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **40291-19-8** REGISTRY
CN Luteinizing hormone-releasing factor (swine), 1-L-proline-, triacetate (salt) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Luteinizing hormone-releasing factor (pig), 1-L-proline-, triacetate (salt)
SQL 10

SEQ 1 PHWSYGLRPG
=========
HITS AT: 1-9

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 78:124875

L7 ANSWER 12 OF 12 REGISTRY COPYRIGHT 2005 ACS on STN
RN **39064-62-5** REGISTRY
CN Luteinizing hormone-releasing factor (swine), 1-L-proline- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Luteinizing hormone-releasing factor (pig), 1-L-proline-
CI COM
SQL 10

SEQ 1 PHWSYGLRPG
=========
HITS AT: 1-9

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 120:46108

REFERENCE 2: 83:131923

REFERENCE 3: 82:133216

REFERENCE 4: 81:33629

REFERENCE 5: 80:91413

REFERENCE 6: 78:16464

(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 15:26:15 ON 01 FEB 2005)
L8 0 S L7

(FILE 'REGISTRY' ENTERED AT 15:26:40 ON 01 FEB 2005)
E LHRH/CN 5
E "LUTEINIZING HORMONE-RELEASING HORMONE"/CN 5
L9 9 S "LUTEINIZING HORMONE-RELEASING HORMONE"?/CN
E "LH-RH"/CN 5
L10 5 S E3-7
L11 12 S L9 OR L10

- key terms
LH-RH

Searcher : Shears 571-272-2528

```
              E "STYRENE-DIVINYLBENZENE"/CN 5
L14           1 S E4-6

     FILE 'CAPLUS' ENTERED AT 15:31:24 ON 01 FEB 2005
L9            9 SEA FILE=REGISTRY ABB=ON  PLU=ON  "LUTEINIZING HORMONE-RELEASIN
                G HORMONE"?/CN
L10           5 SEA FILE=REGISTRY ABB=ON  PLU=ON  (LH-RH/CN OR "LH-RH (1-3)"/CN
                 OR "LH-RH (1-6)"/CN OR "LH-RH (1-9)"/CN OR "LH-RH (SWINE)"/CN)

L11          12 SEA FILE=REGISTRY ABB=ON  PLU=ON  L9 OR L10
L12       20892 SEA FILE=CAPLUS ABB=ON  PLU=ON  L11 OR (LH OR LUTEIN? HORMON?)(
                W)(RH OR RELEAS? HORMON?) OR LHRH
L14           1 SEA FILE=REGISTRY ABB=ON  PLU=ON  ("STYRENE-DIVINYLBENZENE
                COPOLYMER"/CN OR "STYRENE-DIVINYLBENZENE POLYMER"/CN OR
                "STYRENE-DIVINYLBENZENE RESIN"/CN)
L16           9 SEA FILE=CAPLUS ABB=ON  PLU=ON  L12 AND (L14 OR STYRENE(W)(DIVI
                NYLBENZENE OR DI(W)(VINYLBENZENE OR VINYL(W)BENZENE) OR
                DIVINYL BENZENE))


L9            9 SEA FILE=REGISTRY ABB=ON  PLU=ON  "LUTEINIZING HORMONE-RELEASIN
                G HORMONE"?/CN
L10           5 SEA FILE=REGISTRY ABB=ON  PLU=ON  (LH-RH/CN OR "LH-RH (1-3)"/CN
                 OR "LH-RH (1-6)"/CN OR "LH-RH (1-9)"/CN OR "LH-RH (SWINE)"/CN)

L11          12 SEA FILE=REGISTRY ABB=ON  PLU=ON  L9 OR L10
L12       20892 SEA FILE=CAPLUS ABB=ON  PLU=ON  L11 OR (LH OR LUTEIN? HORMON?)(
                W)(RH OR RELEAS? HORMON?) OR LHRH
L17           4 SEA FILE=CAPLUS ABB=ON  PLU=ON  L12 AND (ADSORPT? OR METHACRYLI
                C OR AROMATIC? OR AROM)(S)RESIN


L18          12 L16 OR L17

=> s l18 not l5
L19          12 L18 NOT L5

L19  ANSWER 1 OF 12  CAPLUS  COPYRIGHT 2005 ACS on STN
ED   Entered STN:  16 Sep 2004
ACCESSION NUMBER:         2004:756043  CAPLUS
DOCUMENT NUMBER:          141:266047
TITLE:                    Medical implants coated with biocompatible
                          carbon-containing layers
PATENT ASSIGNEE(S):       Blue Membranes GmbH, Germany
SOURCE:                   Ger. Gebrauchsmusterschrift, 23 pp.
                          CODEN: GGXXFR
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   4
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    ---------------------    --------
     DE 202004009060       U1    20040916    DE 2004-202004009060     20040510
     DE 10322182           A1    20041202    DE 2003-10322182         20030516
     DE 10324415           A1    20041216    DE 2003-10324415         20030528
```

PRIORITY APPLN. INFO.: DE 2003-10322182 A1 20030516
DE 2003-10324415 A1 20030528
DE 2003-10333098 A1 20030721

AB The invention concerns medical implants that are coated with biocompatible carbon-layers composed; the layers are prepared by (a) at least partial covering or coating of a medical implant with a polymer film; (b) heating the polymer film to 2000-2500°C in an oxygen-free atmospheric The medical device is prepared from carbon, carbon-composite material, glass, ceramics, glass fibers, carbon fibers, metals, stainless steel, titanium, tantalum, platinum, nitinol, alloys, artificial bone, minerals, and their combinations; during heat treatment they are transferred in their heat-stable modifications. Artificial blood vessels, stents, coronary stents, peripheral stents, orthopedic implants, artificial hearts and heart valves, artificial bones and joints are prepared Polymers are applied by conventional coating techniques, e.g. from polymer solns.; carbon and silicon can be deposited in a PVD or CVD process. The biocompatible carbon layer can be coated with a bioresorbant or biodegradable polymer layer, e.g. polylactide. The implants can be loaded with drugs, microorganisms or cells.

IT **33515-09-2**, Gonadorelin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medical implants coated with biocompatible carbon-containing layers)

L19 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 19 Nov 2002
ACCESSION NUMBER: 2002:876411 CAPLUS
DOCUMENT NUMBER: 138:234290
TITLE: Integration of solid-phase extraction membranes for sample multiplexing: Application to rapid protein identification from gel-isolated protein extracts
AUTHOR(S): Bonneil, Eric; Li, Jianjun; Tremblay, T.-L.; Bergeron, John J.; Thibault, Pierre
CORPORATE SOURCE: Institute for Biological Sciences, National Research Council, Ottawa, ON, Can.
SOURCE: Electrophoresis (2002), 23(20), 3589-3598
CODEN: ELCTDN; ISSN: 0173-0835
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The present report describes the design and application of a dual sprayer system for high-throughput proteome anal. This system comprises parallel solid-phase extraction cartridges used for preconcn. and desalting of proteolytic digests prior to nanoelectrospray mass spectrometry analyses. Tryptic peptides from in-gel digest of protein bands/spots are first adsorbed on **styrene divinyl benzene** membrane
and subsequently eluted with a short plug of organic buffer prior to infusion
to the mass spectrometer at a flow rate of typically 500 nL/min. Tryptic peptide eluting from the membrane are analyzed by the mass spectrometer by moving in turn each sprayer in front of the sampling orifice. Sequential injection, preconcn. and analyses of tryptic digests are typically achieved with a throughput of up to 3.5 min/sample and a detection limit of approx. 8-80 fmol per injection. Replicate injections of peptide mixts. indicated that reproducibility of peak areas ranged from relative standard deviations (RSD) of 1.1% to 4.5%. The application of this device is

demonstrated for digests of gel-isolated proteins obtained from SDS-PAGE (SDS-PAGE) separation of rat liver plasma membrane and from two-dimensional gel electrophoresis of total cell lysate exts. from human prostatic cancer cell.

IT **9034-40-6, LHRH**
RL: ANT (Analyte); ANST (Analytical study)
(integration of solid-phase extraction membranes for sample multiplexing)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 18 Apr 2002
ACCESSION NUMBER: 2002:287176 CAPLUS
DOCUMENT NUMBER: 137:30136
TITLE: Surface-alkylated polystyrene monolithic columns for peptide analysis in capillary liquid chromatography-electrospray ionization mass spectrometry
AUTHOR(S): Huang, Xian; Zhang, Sheng; Schultz, Gary A.; Henion, Jack
CORPORATE SOURCE: Advion BioSciences Inc., Ithaca, NY, 14850, USA
SOURCE: Analytical Chemistry (2002), 74(10), 2336-2344
CODEN: ANCHAM; ISSN: 0003-2700
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Macroporous poly(**styrene-divinylbenzene**) (PS-DVB) monoliths were prepared by in situ polymerization in PEEK, fused silica, or stainless steel tubing having an inner diameter of 75 or 125 μm. A process is described for subsequent alkylation of the flow-contacting surfaces of the monoliths. The process treats all the surfaces including through-pore standard surfaces of the rigid macroporous monolith with a solution containing a dissolved Friedel-Crafts catalyst, an alkyl halide (1-chlorooctadecane), and an organic solvent. This process produces an improved reversed-phase liquid chromatog. separation of peptides compared to an unmodified monolithic PS-DVB column. The surface octadecylation is not necessary for a reversed-phase separation of proteins since both unmodified and modified columns provide comparable results. Tryptic protein digests, standard proteins, and standard peptides were used to evaluate the monolithic columns by employing electrospray mass spectrometry detection. Potential applications in proteomics studies by mass spectrometry, which use the alkylated monolithic column engaged onto the nanofabricated electrospray ionization chip, are also discussed.

IT **9034-40-6, Luteinizing hormone releasing hormone**
RL: ANT (Analyte); ANST (Analytical study)
(surface-alkylated polystyrene monolithic columns for peptide anal. in capillary liquid chromatog.-electrospray ionization mass spectrometry)

IT **9003-70-7D,** reaction products with octadecyl chloride
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)

(surface-alkylated polystyrene monolithic columns for peptide anal. in capillary liquid chromatog.-electrospray ionization mass spectrometry)
IT **9003-70-7**, Divinylbenzene-styrene copolymer
RL: RCT (Reactant); RACT (Reactant or reagent)
(surface-alkylated polystyrene monolithic columns for peptide anal. in capillary liquid chromatog.-electrospray ionization mass spectrometry)
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 Jan 2001
ACCESSION NUMBER: 2001:31529 CAPLUS
DOCUMENT NUMBER: 134:101194
TITLE: Process for the preparation of **LH-RH** derivatives by chromatographic purification using synthetic **methacrylic resin** adsorbent
INVENTOR(S): Sasaki, Yasuhiro; Shimizu, Katsuji
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001002428	A1	20010111	WO 2000-JP4277	20000629
W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2376763	AA	20010111	CA 2000-2376763	20000629
JP 2001072700	A2	20010321	JP 2000-201434	20000629
EP 1207167	A1	20020522	EP 2000-942386	20000629
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

PRIORITY APPLN. INFO.: JP 1999-186307 A 19990630
WO 2000-JP4277 W 20000629

OTHER SOURCE(S): MARPAT 134:101194

AB A process for the preparation of **LH-RH** derivs. is characterized by subjecting a solution of an **LH-RH** derivative to both treatment with a synthetic **methacrylic resin** adsorbent and that with a synthetic **aromatic resin** adsorbent. According to this process, the formation of byproduct impurities including racemates of **LH-RH** derivs. can be suppressed and such impurities can be efficiently removed, which enables the production of **LH-RH** derivs. having extremely high quality. Further, the process attains satisfactory purification effectively through the two treatment steps and can give **LH-RH** derivs. efficiently in high yields by easy operations not involving

troublesome solid-liquid separation Thus, an aqueous solution (5,600 g) containing 85.46 g
leuprolide acetate was passed through a column of a **methacrylic resin** adsorbent (HP2MG, Mitsubishi Chemical Corp., Yokohama, Japan) (5,500 mL), followed successively washing the column with 0.3 M aqueous AcONa
(pH 6.0) (11,000 mL), 0.25 M aqueous AcONH4 (13,750 mL), 10 volume% aqueous ethanol
(19,250 mL) at 3-7°, and then eluting it with 0.05 M aqueous AcOH (19,250 mL) at 3-7° to give, after collecting the active fractions and concentration, 73.77 g leuprolide acetate (85.46 g).

IT **9003-70-7, Styrene-divinylbenzene** copolymer
RL: NUU (Other use, unclassified); USES (Uses)
(chromatog. adsorbent; process for preparation of **LH-RH** derivs. by chromatog. purification using synthetic **methacrylic** and **aromatic resin** adsorbents)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 13 Aug 1998
ACCESSION NUMBER: 1998:502537 CAPLUS
DOCUMENT NUMBER: 129:136498
TITLE: Preparation of **luteinizing hormone releasing hormone** analogs
INVENTOR(S): Shaobo, Xiao
PATENT ASSIGNEE(S): Asta Medica Aktiengesellschaft, Germany
SOURCE: U.S., 15 pp., Cont.-in-part of U.S. Ser. No. 265,631, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5783562	A	19980721	US 1995-450951	19950523
CN 1061605	A	19920603	CN 1990-108955	19901110
CN 1036343	B	19971105		
ZA 9108847	A	19920826	ZA 1991-8847	19911107
CA 2095932	AA	19920511	CA 1991-2095932	19911108
CA 2095932	C	20030225		
HU 70166	A2	19950928	HU 1993-1353	19911108
AT 149520	E	19970315	AT 1991-919435	19911108
ES 2100965	T3	19970701	ES 1991-919435	19911108
RU 2123499	C1	19981220	RU 1993-4994	19911108
LV 10106	B	19950420	LV 1992-175	19921027
LT 3971	B	19960527	LT 1993-1513	19931203
PRIORITY APPLN. INFO.:			CN 1990-108955 A	19901110
			US 1991-789730 B1	19911112
			US 1994-265631 B2	19940624

OTHER SOURCE(S): MARPAT 129:136498

AB A method is provided for the design and synthesis of **LH-releasing hormone** (**LHRH**) antagonists, e.g. Ac-D-2Nal-D-pClPhe-AA3-Ser-AA5-D-3Pal-Leu-AA8-Pro-D-Ala-NH2 [I; 2Nal =

3-(2-naphthyl)alanine; pClPhe = 4-chlorophenylalanine; AA3 = D-Phe, 3-(3-pyridyl)alanine (D-3Pal); AA5 = Arg, 4-(4-morpholinylmethyl)-L-phenylalanine (Mop); AA8 = Arg, 4-(dipropylaminomethyl)-L-phenylalanine], having exact amino acid sequences and containing 5-100 amino acids. This method can be used to produce peptides useful in treating disorders of the reproductive endocrine system, including endometriosis, precocious puberty, prostate cancer and breast cancer. Addnl., peptides produced by this method can be used as contraceptives for either males or females. Peptides produced by this method can further be employed in the diagnosis and treatment of infertility. Thus, nonnatural **aromatic** amino acids were prepared and coupled via solid-phase methods on a benzhydrylamine **resin** to produce a number of decapeptide amides, including I (AA3 = D-3Pal, AA5 = Mop, AA8 = Arg) (II). Decapeptide amide II showed 100% antiovulatory activity at 1.0 μg, and ED50 = 14.7 μg/mL for histamine release activity.

IT **9034-40-6DP, LH-RH,** analogs
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of **LH releasing hormone** analogs)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 24 Apr 1998
ACCESSION NUMBER: 1998:231279 CAPLUS
DOCUMENT NUMBER: 128:275148
TITLE: Pharmaceutical preparation for intranasal administration
INVENTOR(S): Igarashi, Rie; Takenaga, Mitsuko; Muramatsu, Hiroshi; Ebata, Tetsuo; Kosaka, Yasuo
PATENT ASSIGNEE(S): Fuji Yakuhin Co., Ltd., Japan
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19740733	A1	19980409	DE 1997-19740733	19970916
JP 10114645	A2	19980506	JP 1996-282866	19961007
JP 3020141	B2	20000315		
FI 9703244	A	19980408	FI 1997-3244	19970806
SE 9703133	A	19980408	SE 1997-3133	19970829
US 5948749	A	19990907	US 1997-922775	19970903
GB 2322077	A1	19980819	GB 1997-18690	19970904
ES 2126536	A1	19990316	ES 1997-1891	19970905
ES 2126536	B1	19991001		
AU 9739926	A1	19980409	AU 1997-39926	19971003
FR 2754453	A1	19980417	FR 1997-12321	19971003
CA 2217409	AA	19980407	CA 1997-2217409	19971006
NO 9704618	A	19980408	NO 1997-4618	19971006
CN 1180569	A	19980506	CN 1997-120047	19971006
DK 9701147	A	19980408	DK 1997-1147	19971007

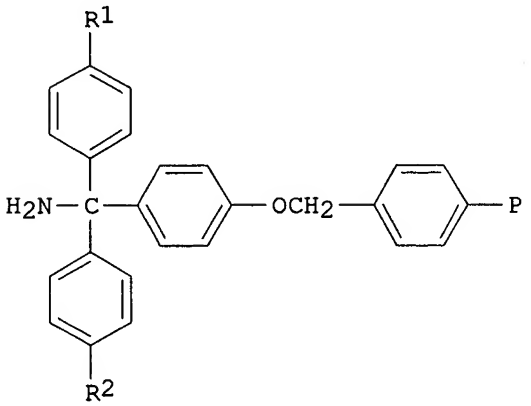
PRIORITY APPLN. INFO.: JP 1996-282866 A 19961007

AB A dry powdered inhalant preparation with improved active agent absorption rate and decreased irritancy contains a bioactive peptide and a powdered adsorbent carrier resin which binds the peptide electrostatically. Thus, to 100 g dry insulin powder (.apprx.25 U/mg) was added in portions 900 g dry **styrene-divinylbenzene** copolymer resin (mean particle size 30 μm) and 20 g Mg stearate (lubricant), and the composition was thoroughly mixed and dispensed in 20-mg portions into hard gelatin capsules for intranasal administration with a pulverizer.

IT **9034-40-6, LH-RH**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical preparation for intranasal administration)

IT **9003-70-7, Styrene-divinylbenzene** copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical preparation for intranasal administration)

L19 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 30 Oct 1996
ACCESSION NUMBER: 1996:639383 CAPLUS
DOCUMENT NUMBER: 126:8632
TITLE: Comparison of different substituted 4-benzyloxytritylamine linkers for solid phase synthesis of peptide amides
AUTHOR(S): Meisenbach, M.; Gruebler, G.; Paulus, G.; Voelter, W.
CORPORATE SOURCE: Abteilung fur Physikalische Biochemie, Universitat Tubingen, Tuebingen, D-72076, Germany
SOURCE: Peptides 1994, Proceedings of the European Peptide Symposium, 23rd, Braga, Port., Sept. 4-10, 1994 (1995), Meeting Date 1994, 265-266. Editor(s): Maia, Hernani L. S. ESCOM: Leiden, Neth.
CODEN: 63MBAO
DOCUMENT TYPE: Conference
LANGUAGE: English
GI



I

AB For Fmoc-solid phase synthesis of peptide amides, several acid-labile linkers have been developed and their applications are well established. However, the high concns. of CF_3CO_2H usually required for the final cleavage make them unsuitable for preparation of protected peptide amides. Therefore, linkers must be cleavable under mild conditions. In this contest, authors prepared different 4-benzyloxytritylamine linkers on **styrene-divinylbenzene** copolymers (I; P = polymer; R1 = R2 = H; R1 = H and R2 = OMe; R1 = R2 = OMe) for testing the coupling efficiency and cleavage conditions of these resins. The 3 supports, 4-benzyloxytritylamine I (R1 = R2 = H) (II), 4-benzyloxy-4'-methoxytritylamine I (R1 = H, R2 = OMe) (III), and 4-benzyloxy-4',4''-dimethoxytritylamine resin I (R1 = R2 = OMe) (IV) were prepared in 4 steps by staring from the Merrifield resin. Fmoc-Gly-OH was attached to the resins and then the peptide amide LH/FSH-RH [pGlu-His(Trt)-Trp(Boc)-Ser(tBu)-Tyr(tBu)-Gly-Leu-Arg(Pmc)-Pro-Gly-NH_2] was prepared using the Fmoc-/tBu strategy and an ECOSYN P batch peptide synthesizer (Eppendorf/Biotronik, Maintal, Germany). The peptides were cleaved by CF_3CO_2H/EDT/thioanisole/H_2O (9.5:1.5:1.5:0.5) to give the desired peptide amide in high yields 86, 90, and 94% for II, III, and IV, resp. and high purity 72, 93.5, and 92.5% for II, III, and IV, resp. The use of the highly acid-labile resin IV allows the preparation of protected peptide amides.

The approach presented here might be also a valuable method to incorporate reporter groups like fluorescent labels or radioactive markers, leading to derivs. for the study of the biol. function of the parent or derivatized peptide amides.

IT **9003-70-7D**, chloromethylated
RL: RCT (Reactant); RACT (Reactant or reagent)
(comparison of different substituted 4-benzyloxytritylamine linkers-containing support for solid phase synthesis of peptide amides)

IT **9003-70-7DP**, chloromethylated, 4-benzyloxytritylamine derivs.
33515-09-2P, Luteinizing hormone-releasing factor (pig)
RL: SPN (Synthetic preparation); PREP (Preparation)
(comparison of different substituted 4-benzyloxytritylamine linkers-containing support for solid phase synthesis of peptide amides)

L19 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 17 Feb 1990
ACCESSION NUMBER: 1990:56719 CAPLUS
DOCUMENT NUMBER: 112:56719
TITLE: Preparation of the ethylamide of des-Gly10, 6-D-Tle luteinizing hormone-releasing factor (**LH-RH**)
INVENTOR(S): Vagner, Josef; Krchnak, Viktor; Krojidlo, Milan
PATENT ASSIGNEE(S): Czech.
SOURCE: Czech., 3 pp.
CODEN: CZXXA9
DOCUMENT TYPE: Patent
LANGUAGE: Czech
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 260642	B1	19890112	CS 1987-1256	19870225
PRIORITY APPLN. INFO.:			CS 1987-1256	19870225

AB The title peptide pGlu-His-Trp-Ser-Tyr-D-Tle-Leu-Arg-Pro-NHEt (I Tle = HNCHCMe3CO), useful as a cattle reproduction regulator (no data), was prepared by solid phase amino acid coupling on a chloromethylated polystyrene-divinylbenzene (1%) resin functionalized by EtNH2. A mixture of EtNH2 and the resin was kept 2 days at 4°; the resin was separated and used for amino acid coupling. The protected I was cleaved and deprotected with the liquid HF in the presence of p-thiocresol and Me2S to give 76.3% I (purity 96%).

IT **9003-70-7D**, Divinylbenzene-styrene copolymer, chloromethylated
RL: RCT (Reactant); RACT (Reactant or reagent)
(amination of, with ethylamine, in preparation of cattle reproduction regulating peptidamide)

L19 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 14 Dec 1985
ACCESSION NUMBER: 1985:596400 CAPLUS
DOCUMENT NUMBER: 103:196400
TITLE: Peptide N-alkylamides by solid phase synthesis
AUTHOR(S): Kornreich, Wayne; Anderson, Harry; Porter, John; Vale, Wylie; Rivier, Jean
CORPORATE SOURCE: Pept. Biol. Lab., Salk Inst., La Jolla, CA, 92138, USA
SOURCE: International Journal of Peptide & Protein Research (1985), 25(4), 414-20
CODEN: IJPPC3; ISSN: 0367-8377
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 103:196400

AB Three new resins have been developed that allow for the solid phase synthesis of C-terminal peptide N-alkylamides using Boc amino acids, usual side chain protecting groups and HF cleavage and deprotection. These resins were prepared by reacting the appropriate alkylamine (NH2CH3, NH2CH2CH3, NH2CH2CF3) to Merrifield's 1% divinylbenzene cross-linked chloromethylated polystyrene resin. The application of these resins to the synthesis of C-terminal gonadotropin-releasing hormone (GnRH) N-alkylamides illustrates the versatility of this approach. GnRH analogs were tested for their ability to release LH from cultured rat anterior pituitary cells. [D-Glu6,Pro9-NHCH2CH3]-GnRH was synthesized for the first time using the solid phase approach and found to be three times more potent than [D-Glu6]-GnRH. Other analogs including [D-Trp6,Pro9-NHCH2CH3]-GnRH, [D-Ala6,Pro9-NHCH2CF3]-GnRH and related peptides were found to be equipotent and to have the same properties (HPLC retention times, amino acid anal. and sp. rotation) as the corresponding peptides synthesized using less amenable strategies; yields were equivalent or better than those reported earlier.

IT **9003-70-7D**, chloromethylated
RL: RCT (Reactant); RACT (Reactant or reagent)
(amination of)

IT **33515-09-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and LH-releasing activity of)

IT **33515-09-2DP**, methylbenzhydrylamine resin-bound
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and deprotection of)

L19 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 26 May 1984
ACCESSION NUMBER: 1984:175264 CAPLUS
DOCUMENT NUMBER: 100:175264
TITLE: **Styrene-divinylbenzene** copolymer for peptide synthesis in a solid phase
AUTHOR(S): Jerabek, Karel; Srejber, Josef; Blaha, Ivo; Zaoral, Milan
CORPORATE SOURCE: Ustav Teor. Zakl. Chem. Tech., CSAV, Prague, Czech.
SOURCE: Chemicky Prumysl (1984), 34(1), 30-3
CODEN: CHPUA4; ISSN: 0009-2789
DOCUMENT TYPE: Journal
LANGUAGE: Czech
AB Title solid-phase supports (particle size .apprx.0.08 mm) were prepared by chloromethylating the parent copolymer (containing 0.5-2% divinylbenzene) with ClCH2OMe in the presence of SnCl4. N-Protected amino acids were introduced onto the polymer by treatment with the corresponding Cs salt in absolute EtOH. The resins were used for solid-phase synthesis of adiuretin SD, **LH-releasing hormone**, and human endorphin.
IT **9003-70-7DP**, chloromethylated
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as support for solid-phase peptide synthesis)
IT **9034-40-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by solid-phase method)

L19 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1982:616696 CAPLUS
DOCUMENT NUMBER: 97:216696
TITLE: Two new methods for the solid phase synthesis of protected peptides. Synthesis of apamin and **LHRH** protected fragments
AUTHOR(S): Pedroso, Enrique; Albericio, Fernando; Grandas, Ana; Giralt, Ernest; Van Rietschoten, Jurphaas; Granier, Claude
CORPORATE SOURCE: Fac. Quim., Univ. Barcelona, Barcelona, Spain
SOURCE: Pept., Proc. Eur. Pept. Symp., 16th (1981), Meeting Date 1980, 334-8. Editor(s): Brunfeldt, K. Scriptor: Copenhagen, Den.
CODEN: 48NWA3
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The solid phase synthesis of the the title peptides involved cleavage of the peptide-resin bond under conditions in which α-amino and side chain protecting groups are stable. The protected 1-6 fragment of apamin Boc-Cys(Acm)-Asn-Cys(Acm)-Lys(Z)-Ala-Pro-OH (Boc = Me3CO2C, Acm = AcNHCH2, Z = PhCH2O2C) was prepared on a α-[4-(bromomethyl)-3-nitrobenzamido]benzylcopoly(**styrene-divinylbenzene**) support and photolytic cleavage of the peptidyl-resin bond. The 7-18 apamin fragment was assembled stepwise on a benzhydrylamine resin and coupled to the 1-6 fragment. The synthesis of **LHRH** involved the use of 4-hydroxymethylphenyloxymethyl resin, fluorenylmethoxycarbonyl

α-amino protection and standard HF-labile side chain protecting groups. The protected peptides are cleared from the resin by 55% CF3CO2H.

IT **9034-40-6P**
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(solid phase synthesis of)

L19 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 May 1984
ACCESSION NUMBER: 1980:211273 CAPLUS
DOCUMENT NUMBER: 92:211273
TITLE: Iodine-125-labeled gonadoliberin of high specific activity and immunoreactivity: method of iodination and rapid separation
AUTHOR(S): Sarda, A. K.; Barnes, M. A.; Nair, R. M.
CORPORATE SOURCE: Res. Serv., VA Med. Cent., Charleston, SC, 29403, USA
SOURCE: Clinical Chemistry (Washington, DC, United States) (1980), 26(5), 573-8
CODEN: CLCHAU; ISSN: 0009-9147
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Optimum conditions for iodinating gonadoliberin with relatively large proportions of Na125I are described. Products of the iodination are separated on an anion-exchange resin (Amberlite IRa-400). The 125I-labeled gonadoliberin thus obtained has a high sp. activity (1400 to 1590 Ci/g); because of the conditions of iodination, it is believed that the predominant species of the labeled decapeptide is the mono-iodinated one. The separation and purification of the labeled substance on ion-exchange resin is rapid, economical, and less cumbersome than the use of a Biogel P-2 column. There is no **adsorption** of the labeled hormone onto the **resin**, as evidenced by anal. recovery studies with 3H-labeled gonadoliberin. Paper-strip chromatoelectrophoresis showed no free Na125I or radiolabeled damaged peptide fragments after purification on the resin. When antiserum was used at a concentration 32-fold that used in the regular assay procedure, only 4% of the radioactivity remained in the free form, indicating the high immunoreactivity of the labeled hormone.

IT **9034-40-6**
RL: RCT (Reactant); RACT (Reactant or reagent)
(iodination of, with iodine-125)

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 15:37:19 ON 01 FEB 2005)
L20 2 S L16
L21 6 S L17
L22 7 S L20 OR L21
L23 7 DUP REM L22 (0 DUPLICATES REMOVED)

L23 ANSWER 1 OF 7 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2001-091796 [10] WPIDS
DOC. NO. CPI: C2001-027143
TITLE: Preparation of **LH-RH** derivatives e.g. leuprolide by treating with resin adsorbents to suppress and remove by-products including racemates efficiently, in excellent quality and high yield, for treatment of

hormone-dependent diseases.

DERWENT CLASS: A96 B04
INVENTOR(S): SASAKI, Y; SHIMIZU, K
PATENT ASSIGNEE(S): (TAKE) TAKEDA CHEM IND LTD
COUNTRY COUNT: 94
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001002428	A1	20010111	(200110)*	JA	39
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AU AZ BA BB BG BR BY BZ CA CN CR CU CZ DM DZ EE GD GE HR HU ID IL IN IS JP KG KR KZ LC LK LR LT LV MA MD MG MK MN MX MZ NO NZ PL RO RU SG SI SK TJ TM TR TT UA US UZ VN YU ZA					
JP 2001072700	A	20010321	(200122)		14
AU 2000057055	A	20010122	(200125)		
EP 1207167	A1	20020522	(200241)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 2001508215	X	20030128	(200318)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001002428	A1	WO 2000-JP4277	20000629
JP 2001072700	A	JP 2000-201434	20000629
AU 2000057055	A	AU 2000-57055	20000629
EP 1207167	A1	EP 2000-942386	20000629
		WO 2000-JP4277	20000629
JP 2001508215	X	WO 2000-JP4277	20000629
		JP 2001-508215	20000629

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000057055	A	Based on	WO 2001002428
EP 1207167	A1	Based on	WO 2001002428
JP 2001508215	X	Based on	WO 2001002428

PRIORITY APPLN. INFO: JP 1999-186307 19990630
AN 2001-091796 [10] WPIDS
AB WO 200102428 A UPAB: 20010220
NOVELTY - A process for preparing **LH-RH** derivatives is by subjecting a solution of an **LH-RH** derivative to treatment with a synthetic **methacrylic resin** adsorbent and with a synthetic **aromatic resin** adsorbent. By the method, it is possible to suppress and remove by-products including racemates efficiently to afford product n excellent quality and high yield.

DETAILED DESCRIPTION - A process for preparing **LH-RH** derivatives is by subjecting a solution of an **LH-RH** derivative to treatment with a synthetic **methacrylic resin** adsorbent and with a synthetic **aromatic**

resin adsorbent.

An INDEPENDENT CLAIM is also included for purified leuprolide or its salt with not more than 1 % total content of analogous substances, or with not more than 0.3 % content of 5-oxo-Pro-D-His-Trp-Ser-Tyr-D-Leu-Leu-Arg-Pro-NH-CH2CH3 or its salt.

ACTIVITY - Cytostatic.

MECHANISM OF ACTION - None given.

USE - The prepared **LH-RH** derivatives are for treatment of hormone-dependent diseases such as prostate cancer, endometrial disorder and prementrual syndrome.

ADVANTAGE - By the method, it is possible to suppress and remove by-products including racemates efficiently to afford product n excellent quality and high yield.

Dwg.0/0

L23 ANSWER 2 OF 7 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN

ACCESSION NUMBER: 2000:367425 BIOSIS

DOCUMENT NUMBER: PREV200000367425

TITLE: Insect oostatic activity of GnRH and its fragments.

AUTHOR(S): Hlavacek, Jan [Reprint author]; Bennettova, Blanka; Tykva, Richard; Velek, Jiri; Kasicka, Vaclav; Barth, Tomislav

CORPORATE SOURCE: Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic, Flemingovo nam. 2, 166 10, Praha, 6, Czech Republic

SOURCE: Letters in Peptide Science, (March, 2000) Vol. 7, No. 2, pp. 85-92. print.
ISSN: 0929-5666.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 23 Aug 2000
Last Updated on STN: 8 Jan 2002

AB Mammal, 125I-mammal, salmon, chicken I and II GnRHs and three fragments of mammal GnRH were synthesized and their effect on oogenesis in the flesh fly Neobellieria (formerly Sarcophaga) bullata (Diptera) was investigated. The peptides were prepared by the Merrifield solid phase synthesis on polystyrene/divinylbenzene polymer using the Nalpha-Boc strategy in DMF and were purified by preparative RP-HPLC in a gradient of water-MeOH. From the peptides assayed, only mammal GnRH and two of its carboxy-terminus truncated analogs remarkably affected the processes of egg development in ovarioles, causing changes in the follicular epithelium, proliferation of its nuclei and cell division towards the inner part of the egg chamber. The process led to the occurrence of multinuclear follicular epithelium which finally filled up almost the whole egg chamber and then it degenerated. The inability of GnRH of other animal species to evoke the changes in the egg development establishes the question of primary structures of GnRH responsible for these biological effects. The identity of sequences of GnRHs from position 1 up to 6 (with the exception of chicken GnRH II) points to functionality of amino acids located in positions 7 and 8 of the peptide chain. The radioactivity of the 125I-labelled mammal GnRH with maintained oostatic activity and its receptor competition with the non-labelled mammal GnRH were measured in selected insect organs and exhibited different residual values according to the organ and the time after application of the peptide. A transfer of the radioactivity into the next (F1) generation was also observed.

L23 ANSWER 3 OF 7 EMBASE

on STN
ACCESSION NUMBER: 96113174 EMBASE
DOCUMENT NUMBER: 1996113174
TITLE: Gonadotropin-releasing hormone (GnRH) analogues containing Tyr(OMe) at position 5.
AUTHOR: Keramida M.; Matsoukas J.M.; Agelis G.; Panagiotopoulos D.; Cladas J.; Maia H.L.S.; Yamdagni R.; Wu Q.; Pati D.; Moore G.J.; Habibi H.R.
CORPORATE SOURCE: Department of Chemistry, University of Patras,Patras, Greece
SOURCE: Review of Clinical Pharmacology and Pharmacokinetics, International Edition, (1995) 9/2-3 (67-69).
ISSN: 1011-6583 CODEN: EKIEE2
COUNTRY: Greece
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Peptide analogues of the hypothalamic hormone GnRH (Gonadotropin Releasing Hormone), altered at positions 5 (Tyr-OMe), 6(D-Glu), 9(Aze) and 10(NHEt, NHCH2CH2OH, Glyamide) were synthesized by Fmoc solid phase methodology using the acid sensitive 2-chlorotrityl **resin** as solid support. The synthesized analogues were purified by reverse phase HPLC and tested for biological activity in terms of pituitary gonadotropin releasing in vivo and in vitro. Relative potencies were estimated using cultured pituitary tissues in vitro, rat pituitary GnRH receptors assay and ovulation in vivo. [Tyr(OMe)5, Aze9-NHEt] GnRH and Tyr(OMe)5, D-Glu6, Aze9-NHEt]GnRH were found to be effective in terms of inducing ovulation at 50 μg/Kg in seabass. The conformational properties of GnRH in dimethylsulfoxide-d6 were investigated by Nuclear Overhauser Effect (NOE) enhancement studies. Assignment of all backbone and side-chain protons was possible by combining information from intraresidue NOE studies with two-dimensional correlated spectroscopy (COSY) studies. Saturation of distinct proton resonances of the three **aromatic** residues Tyr, His, Trp in clear areas of the NMR spectrum resulted in interresidue enhancements of **aromatic** resonances indicating proximity of the three **aromatic** rings.

L23 ANSWER 4 OF 7 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 1986-227051 [35] WPIDS
DOC. NO. CPI: C1986-097814
TITLE: New peptide(s) containing aliphatic-aromatic ketone side chain - useful for effecting release of gonadotropin or inhibiting release of growth hormone by pituitary gland.
DERWENT CLASS: B04
INVENTOR(S): ANDERSON, H A; RIVIER, J E F; VALE, W W; WYLIE, W V
PATENT ASSIGNEE(S): (SALK) SALK INST BIOLOGICAL STUDIES
COUNTRY COUNT: 20
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 192492	A	19860827	(198635)*	EN	34
R: AT BE CH DE FR GB IT LI LU NL SE					
PT 82069	A	19860814	(198639)		
AU 8653489	A	19860828	(198641)		

JP 61194098	A	19860828	(198641)
ZA 8600569	A	19860908	(198652)
DK 8600796	A	19860823	(198703)
US 4677193	A	19870630	(198728)
ES 8707973	A	19871116	(198751)
EP 192492	B	19920102	(199202)
R: AT BE CH DE FR GB IT LI LU NL SE			
KR 9007865	B	19901022	(199204)
DE 3683169	G	19920213	(199208)
CA 1307374	C	19920908	(199242)
JP 06031315	B2	19940427	(199415)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 192492	A	EP 1986-301278	19860221
JP 61194098	A	JP 1986-37180	19860221
ZA 8600569	A	ZA 1986-569	19860124
US 4677193	A	US 1985-704299	19850222
ES 8707973	A	ES 1986-552266	19860221
CA 1307374	C	CA 1986-501230	19860206
JP 06031315	B2	JP 1986-37180	19860221

FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 06031315	B2 Based on	JP 61194098

PRIORITY APPLN. INFO: US 1985-704299 19850222

AN 1986-227051 [35] WPIDS

AB EP 192492 A UPAB: 19970909

Peptides of formula X-R1-R2-R3-R4-R5-R6(V)-R7-Arg-Pro-R10 (I) and their salts are new. In (I), X is H or 1-7C acyl, R1 is pGlu, dehydro-Pro, Pro, D-pGlu, D-Phe, D-Trp or beta-D-NAL; R2 is (W)D-Phe or His; W is F, Cl, Cl2, Br, NO2 or C(alpha)Me/Cl; R3 is beta-D-NAL, Trp, D-Trp, D-PAL, (N(in)For) D-Trp or D-Trp substd. in the 5- or 6-posn. by NO2, NH2, OMe, F, Cl, Br or Me; R4 is Ser, Orn, beta-amino-Ala or alpha, gamma-diaminobutyric acid; R5 is Tyr, Arg, (3F)Phe, (2F)Phe, (3I)Tyr, (3Me)Phe, (2Me)Phe, (3Cl)Phe or (2Cl)Phe; R6 is D-Glu, D-Hgl or D-Asp; R7 is Leu, N(alpha)-Me-L-Leu, Nle or NVa; R10 is Gly-NH2, D-Ala-NH2 or NHY; Y is lower alkyl, cycloalkyl, lower fluoroalkyl or NHCONHQ; Q is H or lower alkyl; V is aromatic moiety of a ketone formed from the carboxylic gp. side chain of R6 and a cpd. selected from a defined list of numerous alkylbenzenes, alkyltoluenes, indanes, tetralins, alkylxylenes, polycyclic aromatic hydrocarbon derivs., aryl ethers etc.

USE/ADVANTAGE - (I) effect release of gonadotropins or inhibit release of growth hormone by the pituitary gland in mammals. They have improved biological potency compared with the natural decapeptide **LH-RH** from the hypothalmus. Some cpds. (I) are strongly antagonistic to **LH-RH** and inhibit mammalian reproduction, while others are potent agonists of **LH-RH** . In females (I) may delay or suppress ovulation, and in males may arrest spermatogenesis. (I) may also be used for treating precocious puberty and endometriosis. Dose is 1-100 micrograms/kg. intravenously or 0.1-2.5

mg/kg. orally.
Dwg.0/0
ABEQ US 4677193 A UPAB: 19930922
GnRH peptide analogues and salts of formula
X-R1R2R3R4R5-D-Glu(C6H4OCH3)- R7-Arg-Pro-R10 (I),
are new. In the formula, X is H or 1-7C alkyl; R1 is pGlu, dehydro Pro, Pro, D-pGlu, D-Phe, D-Trp, betal-D-NAL: R2 is His or (W)D-Phe where W is 4F, 4Cl2, 2,4-Cl2, 4Br, 4NO2 or CalphaMe/4Cl; R3 is Trp, D-Trp, beta-D2NAL, D-PAL, (N (in) For) D-Trp, or D-Trp. substd. on 5- or 6-position with NO2, NH2, OMe, F, Cl, Br, Me; R4 is Ser, Orn, AAL, or aBu; R5 is Tyr, Arg, (3F)Phe, (2F)Phe, (3I)Tyr, 3(Me)Phe, (2Me)Phe, (3Cl)Phe, (2Cl)Phe; R7 is Leu, NML, Nle, or Nva; R10 is Gly-NH2, D-Ala-NH2, or NH-Y with Y as lower alkyl opt. F-substd. cycloalkyl, NHCONHQ where Q is H or alkyl.
Specifically claimed cpds. include Ac-beta-D-2 NAL-(4Cl) D-Phe-D-3PAL Ser-Arg-D-Glu(C6H4OCH3)-Leu-Arg-Pro-D-Ala-NH2.
(I) may be synthesised e.g. by forming intermediate (II): X1-R1-(W)D-PheR3(X2)- R4(X3)-R5(XX4) or (X6)R6(X5)-R7-Arg(X6)-Pro-X7 where X's are H or protecting gps. and X7 is Gly-NH-**resin** support or other attachment to **resin**, and deprotecting with HF in presence of **aromatic** Z to form alkyl ketone side chain with **aromatic** termination in centre of main chain.
USE - GnRH analogues (I) regulate secretion of FSH and LH and then gonadotrophins by pituitary: antagonists inhibit ovulation and release of gonadotrophins progesterone and testerone: agonists increase male and female fertility. Substitution of D-amino acid for Cly in CnRH gives stronger binding and potency.

L23 ANSWER 5 OF 7 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 84085565 EMBASE
DOCUMENT NUMBER: 1984085565
TITLE: Structure-activity studies on the N-terminal region of glucagon.
AUTHOR: Sueiras-Diaz J.; Lance V.A.; Murphy W.A.; Coy D.H.
CORPORATE SOURCE: Section of Endocrinology and Metabolism, Department of Medicine, Tulane University School of Medicine, New Orleans, LA 70112, United States
SOURCE: Journal of Medicinal Chemistry, (1984) 27/3 (310-315). CODEN: JMCMAR
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
030 Pharmacology
003 Endocrinology
LANGUAGE: English
AB Using solid-phase methodology and preparative medium- and high-performance reverse-phase liquid chromatography, we have synthesized glucagon and its Arg12 analogue in approximately 5% yields. The synthetic glucagon was fully active relative to natural material, and the Arg12 peptide exhibited 50% activity. Since perhaps the most critical part of the glucagon-family peptides is the N-terminal hexapeptide region, both batches of **resin** were split during synthesis in order to prepare two series of analogues based on glucagon and [Arg12]glucagon with changes in the His-Ser-Gln-Gly-Thr-Phe sequence. The following new analogues were tested for their effects on blood glucose levels in normal male rats relative to

glucagon and gave the following activities: [Ac-His1,Arg12]glucagon, 46%; [3-Me-His1,Arg12]glucagon, 30%; [Phe1,Arg12]glucagon, 31%; [Des-His1,Arg12]glucagon, 4%; [D-Ala2,Arg12]glucagon, 44%; [D-p-C]-Phe1,D-ala4,Arg12]glucagon, 9%; [D-Phe4]glucagon, 655%; [Ala2]glucagon, 9%. These data indicate that the amino or imidazole nitrogens of the histidine residue are not essential for biological activity. However, an **aromatic** group in position 1 may be important, since the Phe1 analogue is almost as active as glucagon in our bioassay. The superagonist activity with [D-Phe4]glucagon, which was synthesized to test the hypothesis that a β-bend conformation occurs at this position in glucagon by analogy with **luteinizing hormone-releasing hormone** and other Gly-containing peptides, indicates that this is indeed the case and has important implications for the receptor-recognition requirements of the glucagon-secretin-vasoactive intestinal peptide family of peptides.

L23 ANSWER 6 OF 7 MEDLINE on STN
ACCESSION NUMBER: 81259083 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7020991
TITLE: 125I-labeled gonadoliberin and high specific activity and immunoreactivity: method of iodination and rapid separation.
AUTHOR: Sarda A K; Barnes M A; Nair R M
SOURCE: Clinical chemistry, (1980 Apr) 26 (5) 573-8. Journal code: 9421549. ISSN: 0009-9147.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198110
ENTRY DATE: Entered STN: 19900316
Last Updated on STN: 19900316
Entered Medline: 19811029

AB We describe optimum conditions for iodinating gonadoliberin with use of relatively large proportions of Na 125I. Products of the iodination are separated on an anion-exchange resin (Amberlite IRA-400). The 125I-labeled gonadoliberin thus obtained has a high specific activity (1400 to 1590 Ci/g); because of the conditions of iodination, we believe that the predominant species of the labeled decapeptide is the mono-iodinated one. Our separation and purification of the labeled substance on ion-exchange resin is rapid, economical, and less cumbersome than the use of a Biogel P-2 column. There is no **adsorption** of the labeled hormone onto the **resin**, as evidenced by analytical recovery studies with tritium-labeled gonadoliberin. Paper-strip chromatoelectrophoresis showed no free Na 125I or radiolabeled damaged peptide fragments after purification on the resin. When antiserum was used at a concentration 32-fold that used in the regular assay procedure, only 4% of the radioactivity remained in the free form, indicating the high immunoreactivity of the labeled hormone.

L23 ANSWER 7 OF 7 JAPIO (C) 2005 JPO on STN
ACCESSION NUMBER: 2001-072700 JAPIO
TITLE: PURIFICATION OF **LH-RH** DERIVATIVE
INVENTOR: SASAKI YASUHIRO; SHIMIZU KATSUJI
PATENT ASSIGNEE(S): TAKEDA CHEM IND LTD
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 2001072700	A	20010321	Heisei	C07K007-23

APPLICATION INFORMATION
STN FORMAT: JP 2000-201434 20000629
ORIGINAL: JP2000201434 Heisei
PRIORITY APPLN. INFO.: JP 1999-186307 19990630
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2001

AN 2001-072700 JAPIO

AB PROBLEM TO BE SOLVED: To obtain the subject high-quality derivative in an industrially advantageous method and high yield by passing a solution containing a specific derivative through a step treating with a **methacrylic** synthetic absorptive **resin** and a step treating with an **aromatic** synthetic absorptive **resin**. SOLUTION: A solution containing an **LH-RH** derivative is passed through a step treating with a methacylic synthetic absorptive **resin** and a step treating with an **aromatic** synthetic absorptive **resin** to provide the objective derivative. Peptidergic **LH-RH** derivative (salt) having **LH -RH** agonist activity and effective for hormone-dependent diseases is exemplified as the **LH-RH** agonist. A physiologically active peptide (salt), etc., of the formula 5-oxoproline-histidine- tryptophan-serine-tyrosine-Y-leucine-arginine-proline-Z (Y is a residue of D- leucine, D-alanine or the like; Z is NH-C2H5 or glycine-NH2) is exemplified as such derivative.

FILE 'CAPLUS' ENTERED AT 15:39:36 ON 01 FEB 2005
L24 0 S L12 AND STYRENE(W)DVB

FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 15:39:46 ON 01 FEB 2005
L25 0 S L24

(FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 15:40:24 ON 01 FEB 2005)
L26 35025 SEA ABB=ON PLU=ON "SASAKI Y"?/AU — Author(s)
L27 40944 SEA ABB=ON PLU=ON "SHIMIZU K"?/AU
L28 16 SEA ABB=ON PLU=ON L26 AND L27
L29 75953 SEA ABB=ON PLU=ON L26 OR L27
L30 30 SEA ABB=ON PLU=ON L29 AND L12
L31 3 SEA ABB=ON PLU=ON L30 AND (L14 OR STYRENE(W)(DIVINYLBENZENE OR DI(W)(VINYLBENZENE OR VINYL(W) BENZENE) OR DIVINYL BENZENE OR DVB) OR RESIN)
L32 16 SEA ABB=ON PLU=ON L28 OR L31
L33 13 DUP REM L32 (3 DUPLICATES REMOVED)

L33 ANSWER 1 OF 13 JICST-EPlus COPYRIGHT 2005 JST on STN
ACCESSION NUMBER: 1030640282 JICST-EPlus
TITLE: Catalyst Activity Researches of Dodecatungstate Catalysts Containing Organic Cation on Solvent-Free Epoxidation
AUTHOR: HOJO TATSUHIKO
SHIMIZU KENJI

Searcher : Shears 571-272-2528

NAKAMURA KEN'ICHI
SASAKI YO
ICHIHARA JUNKO
YAMAGUCHI SHUNRO
SOURCE: Nippon Kagakkai Koen Yokoshu, (2003) vol. 83rd, no. 1, pp. 553. Journal Code: S0493A
ISSN: 0285-7626
PUB. COUNTRY: Japan
DOCUMENT TYPE: Conference; Short Communication
LANGUAGE: Japanese
STATUS: New
AB Syntheses of the dodecatungstate catalysts containing various organic cation except cetylpyridinium were investigated and the catalytic activities were compared on the solvent-free epoxidation of cyclooctene. The initial catalyst activities depended upon alkyl ammonium cation consisting of the polyoxometalate catalysts. (author abst.)

L33 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2001:31529 CAPLUS
DOCUMENT NUMBER: 134:101194
TITLE: Process for the preparation of **LH-RH** derivatives by chromatographic purification using synthetic methacrylic **resin** adsorbent
INVENTOR(S): **Sasaki, Yasuhiro; Shimizu, Katsuji**
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001002428	A1	20010111	WO 2000-JP4277	20000629
W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, MZ, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2376763	AA	20010111	CA 2000-2376763	20000629
JP 2001072700	A2	20010321	JP 2000-201434	20000629
EP 1207167	A1	20020522	EP 2000-942386	20000629
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

PRIORITY APPLN. INFO.: JP 1999-186307 A 19990630
WO 2000-JP4277 W 20000629
OTHER SOURCE(S): MARPAT 134:101194
AB A process for the preparation of **LH-RH** derivs. is characterized by subjecting a solution of an **LH-RH** derivative to both treatment with a synthetic methacrylic **resin** adsorbent and that with a synthetic aromatic **resin** adsorbent. According to this process, the formation of byproduct impurities including racemates of

LH-RH derivs. can be suppressed and such impurities can be efficiently removed, which enables the production of **LH-RH** derivs. having extremely high quality. Further, the process attains satisfactory purification effectively through the two treatment steps and can give **LH-RH** derivs. efficiently in high yields by easy operations not involving troublesome solid-liquid separation Thus, an aqueous solution (5,600 g) containing 85.46 g leuprolide acetate was passed through a column of a methacrylic **resin** adsorbent (HP2MG, Mitsubishi Chemical Corp., Yokohama, Japan) (5,500 mL), followed successively washing the column with 0.3 M aqueous AcONa (pH 6.0) (11,000 mL), 0.25 M aqueous AcONH4 (13,750 mL), 10 volume% aqueous ethanol (19,250 mL) at 3-7°, and then eluting it with 0.05 M aqueous AcOH (19,250 mL) at 3-7° to give, after collecting the active fractions and concentration, 73.77 g leuprolide acetate (85.46 g).

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L33 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 1996:527452 CAPLUS
DOCUMENT NUMBER: 125:146930
TITLE: Method and apparatus for manufacture of p-xylene
INVENTOR(S): Kumada, Fumio; Hatanaka, Shigeto; **Shimizu, Kazutomo; Sasaki, Yoichi**
PATENT ASSIGNEE(S): Mitsubishi Oil Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08143483	A2	19960604	JP 1994-58128	19940303
PRIORITY APPLN. INFO.:			JP 1994-58128	19940303

AB In the manufacture of p-xylene by distillation-separation of C7-9 fractions, p-xylene separation and raffinate isomerization stages, the method comprises mixing the raffinate with a fresh feed containing ethylbenzene, p-xylene, o-xylene and m-xylene fractions, isomerizing the mixed raffinate, separating the xylene fractions by distillation, and separating p-xylene from the xylene fractions.

L33 ANSWER 4 OF 13 JICST-EPlus COPYRIGHT 2005 JST on STN
ACCESSION NUMBER: 960878965 JICST-EPlus
TITLE: SIMS Analysis of Zn diffusion into InGaAsP.
AUTHOR: KAWASHIMA YOSHIYA; **SHIMIZU KEIJI**; SHIOTANI KEIJI; **SASAKI YOSHIHIRO**
CORPORATE SOURCE: NEC Corp.
SOURCE: Oyo Butsuri Gakkai Gakujutsu Koenkai Koen Yokoshu, (1996) vol. 57th, no. 2, pp. 548. Journal Code: Y0055A

PUB. COUNTRY: Japan
LANGUAGE: Japanese
STATUS: New

L33 ANSWER 5 OF 13 JAPIO (C) 2005 JPO on STN
ACCESSION NUMBER: 1994-183377 JAPIO
TITLE: WINDOW GLASS POSITIONING DEVICE
INVENTOR: **SHIMIZU KIWA; SASAKI YASUHIRO**
PATENT ASSIGNEE(S): HONDA MOTOR CO LTD
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 06183377	A	19940705	Heisei	B62D065-00

APPLICATION INFORMATION
STN FORMAT: JP 1992-356235 19921221
ORIGINAL: JP04356235 Heisei
PRIORITY APPLN. INFO.: JP 1992-356235 19921221
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1994

AN 1994-183377 JAPIO
AB PURPOSE: To provide a positioning device for positioning a window glass, curved at both lateral end parts, into a specified position in order to apply adhesive, for instance.
CONSTITUTION: In order to position a curved window glass W, a window glass positioning device is provided with suction mechanism 2 for suction-holding the window glass W, and end part holding mechanism 3 for holding both longitudinal end parts of the window glass W. Both lateral end parts of the window glass W are pressure-deformed inward by a pair of pressing members 13 provided at the end part holding mechanism 3, so that the window glass W is positioned in the narrower shape than the normal shape. These pressing members 13 can be advanced/retreated by the operation of a cylinder unit 8.

L33 ANSWER 6 OF 13 JICST-EPlus COPYRIGHT 2005 JST on STN
ACCESSION NUMBER: 930621035 JICST-EPlus
TITLE: On development of a chemical purchase control system using statistical method and the evaluation.
AUTHOR: SAWA AKIHIRO; YAMASAKI KOJI; **SHIMIZU KATSUHIRO;** SHINAGAWA RYUTARO; OISHI TERUO; **SASAKI YOSHIHITO**
CORPORATE SOURCE: Mazda Hospital
SOURCE: Nippon Byoin Yakuzaishikai Zasshi (Journal of Japanese Society of Hospital Pharmacists), (1993) vol. 29, no. 6, pp. 693-698. Journal Code: S0740C (Fig. 8, Tbl. 1, Ref. 2) CODEN: NBYZEB; ISSN: 1341-8815
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Commentary
LANGUAGE: Japanese
STATUS: New

L33 ANSWER 7 OF 13 JICST-EPlus COPYRIGHT 2005 JST on STN
ACCESSION NUMBER: 880240557 JICST-EPlus
TITLE: Symposium. The 3rd Symposium on Percutaneous Absorption-type preparations. Poster session. 2. A

consideration on the evaluating method drug efficacy of local antiphlogistic analgesic transdermal patch.

AUTHOR: **SHIMIZU KEISUKE**; KOMATSU SHUICHI; HOSOKI RUMIKO; SATO TAKAHIRO; NAGANO KATSUHIRO; MATSUNO SAKAHITO TAZOE RYUICHI
SASAKI YASUHIKO
TAKEISHI MASATAKA

CORPORATE SOURCE: Mikasaseiyaku
Ridokemikaru
Suzukinihondo
Nihon Univ., College of Agriculture and Veterinary Medicine

SOURCE: Ther Res, (1988) vol. 8, no. 1, pp. 235-236. Journal Code: Y0681A (Fig. 3)
ISSN: 0289-8020

PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Short Communication
LANGUAGE: Japanese
STATUS: New

L33 ANSWER 8 OF 13 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 84011758 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7186555
TITLE: Responses of narrow segments of intestines in the congenital aganglionosis rat to various stimulants.
AUTHOR: Ikadai H; **Shimizu K**; Nakajyo S; Imamichi T; **Sasaki Y**; Urakawa N
SOURCE: Nippon Heikatsukin Gakkai zasshi, (1982 Nov) 18 (5) 347-61. Journal code: 7505718. ISSN: 0374-3527.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198311
ENTRY DATE: Entered STN: 19900319
Last Updated on STN: 19900319
Entered Medline: 19831123

AB The shortenings of intestinal strips isolated from narrow segments in the aganglionosis rat have been studied in response to stimulants and field stimulation. Relating to the action of nicotine, eserine and field stimulation, the number of exogenous nerve bundles observed between the longitudinal and circular muscle layer and the type of cells existing in the nerve bundles were examined by light and electron microscopes. Nicotine shortened in 16 out of 31 narrow segments and eserine 13 out of 14 preparations. In 6 out of 21 preparations, field stimulation produced weak contraction, which was abolished by pretreatment of atropine or TTX. The number of the nerve bundles was larger in the responded groups than in the non-responded. However, no ganglion cells were observed in the nerve bundle of the narrow segment of the aganglionosis rat. To acetylcholine, serotosine, prostaglandin E2, KCl and BaCl2, all narrow segments responded, though the response to these drugs particulary to KCl was extremely weaker than those in control. It is suggested that the nerve bundles of the narrow segment branched and formed nerve endings in the smooth muscle and the responsiveness of the receptor to the stimulants is maintained in the narrow segment, but contractility of the smooth muscle is small.

L33 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1979:40484 CAPLUS
DOCUMENT NUMBER: 90:40484
TITLE: Surface sizes for paper
INVENTOR(S): **Shimizu, Katsuhisa**; Ishibe, Shuhei; Tsuchida, Seiichi; Amano, Kazuo; Minami, Norio; **Sasaki, Yoshikazu**
PATENT ASSIGNEE(S): Arakawa Chemical Industries, Ltd., Japan
SOURCE: Jpn. Tokkyo Koho, 5 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 53038324	B4	19781014	JP 1971-22496	19710410
PRIORITY APPLN. INFO.:			JP 1971-22496 A	19710410

AB Oils from decomposition of naphtha were copolymd. with methacrylic acid (I) or acrylic acid and neutralized with KOH and aqueous NH3 to prepare sizes. Thus, an oil having b.p. 160-80° and Br number 56 100, I 25, and AIBN 1.5 g were heated at 100° for 5 h to prepare 33.4 g polymer, dispersed in water, treated with KOH to degree of neutralization 80%, and used as a size to prepare paper having Stockigt sizing degree 30 s, compared with 3 s for paper containing no size.

L33 ANSWER 10 OF 13 MEDLINE on STN
ACCESSION NUMBER: 80066117 MEDLINE
DOCUMENT NUMBER: PubMed ID: 292506
TITLE: A case of multiple maxillo-facial fracture with special reference to transzygomatic pinning (author's transl).
AUTHOR: Ishikawa M; **Shimizu K**; Fujii T; Suzuki S; Yamamoto Y; Sumida H; Morisawa N; **Sasaki Y**
SOURCE: Josai Shika Daigaku kiyo. Bulletin of the Josai Dental University, (1978) 7 (2) 339-44.
Journal code: 0377752. ISSN: 0301-2662.
PUB. COUNTRY: Japan
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Dental Journals
ENTRY MONTH: 198002
ENTRY DATE: Entered STN: 19900315
Last Updated on STN: 19900315
Entered Medline: 19800226

L33 ANSWER 11 OF 13 JAPIO (C) 2005 EPO on STN
ACCESSION NUMBER: 1976-042365 JAPIO
TITLE: HAISUINOSHORIHO
INVENTOR: KOGA KOICHI; TAKAMORI IWANE; WATANABE TSUYOSHI; ANDO KATSUYOSHI; FUNAKI AKIRA; **SHIMIZU KATSUNOSUKE ; SASAKI YOSHIHIRO**
PATENT ASSIGNEE(S): SUMITOMO KAGAKU KOGYO KK

PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 51042365	A	19760409	Showa	C02C001-06

APPLICATION INFORMATION
STN FORMAT: JP 1974-116638 19741008
ORIGINAL: JP49116638 Showa
PRIORITY APPLN. INFO.: JP 1974-116638 19741008
SOURCE: INPADOC
AN 1976-042365 JAPIO

L33 ANSWER 12 OF 13 JAPIO (C) 2005 JPO on STN
ACCESSION NUMBER: 2003-199293 JAPIO
TITLE: COOLING APPARATUS FOR DRIVE DEVICE WITH MOTOR
INVENTOR: **SHIMIZU KATSUTOSHI; SASAKI YOSHIHIKO** ; YOSHIDA TOSHIHISA
PATENT ASSIGNEE(S): AISIN AW CO LTD
PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 2003199293	A	20030711	Heisei	H02K009-19

APPLICATION INFORMATION
STN FORMAT: JP 2001-398635 20011227
ORIGINAL: JP2001398635 Heisei
PRIORITY APPLN. INFO.: JP 2001-398635 20011227
SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2003
AN 2003-199293 JAPIO
AB PROBLEM TO BE SOLVED: To prevent refrigerants of different kinds which cool a drive device with a motor from mixing together at a heat transfer part.
SOLUTION: In the cooling apparatus of a drive device with a motor, a first refrigerant circulation system and a second refrigerant circulation system are independently provided so that a first refrigerant which cools the motor is cooled by a second refrigerant of a different kind. At a heat exchange part where the refrigerant channels of the first and second refrigerant circulation systems, a heat transfer wall 12 which isolates the refrigerant channels from each other is provided. The heat transfer wall is a member different from a member 10 forming the refrigerant channels. On the joint surface between the heat transfer wall and the member forming the refrigerant channel, a drain channel E communicating with the outsides of both refrigerant circulation systems is formed. Thus, the refrigerant leaking to the joint surface is discharged through the drain channel, preventing the mixture of the refrigerants of different kinds.
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L33 ANSWER 13 OF 13 JAPIO (C) 2005 JPO on STN
ACCESSION NUMBER: 2001-072700 JAPIO
TITLE: PURIFICATION OF **LH-RH** DERIVATIVE
INVENTOR: **SASAKI YASUHIRO; SHIMIZU KATSUJI**
PATENT ASSIGNEE(S): TAKEDA CHEM IND LTD

PATENT INFORMATION:

PATENT NO	KIND	DATE	ERA	MAIN IPC
JP 2001072700	A	20010321	Heisei	C07K007-23

APPLICATION INFORMATION

STN FORMAT:	JP 2000-201434	20000629
ORIGINAL:	JP2000201434	Heisei

PRIORITY APPLN. INFO.: JP 1999-186307 19990630

SOURCE: PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2001

AN 2001-072700 JAPIO

AB PROBLEM TO BE SOLVED: To obtain the subject high-quality derivative in an industrially advantageous method and high yield by passing a solution containing a specific derivative through a step treating with a methacrylic synthetic absorptive **resin** and a step treating with an aromatic synthetic absorptive **resin**.
SOLUTION: A solution containing an **LH-RH** derivative is passed through a step treating with a methacylic synthetic absorptive **resin** and a step treating with an aromatic synthetic absorptive **resin** to provide the objective derivative. Peptidergic **LH -RH** derivative (salt) having **LH-RH** agonist activity and effective for hormone-dependent diseases is exemplified as the **LH-RH** agonist. A physiologically active peptide (salt), etc., of the formula 5-oxoproline-histidine- tryptophan-serine-tyrosine-Y-leucine-arginine-proline-Z (Y is a residue of D- leucine, D-alanine or the like; Z is NH-C2H5 or glycine-NH2) is exemplified as such derivative.

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